

MIA-LIDEC

ACOUSTIC WAVE TYPE ALARM SENSOR

GENERAL

MIA-LIDEC is an alarm sensor using an acoustic wave. As compared with the conventional float type, the detection is made without a moving part, resulting in the excellent durability and reliability. MIA-LIDEC is optimum for the level detection of high and overflow alarm on crude carrier, product carrier etc.

OPERATION PRINCIPLE

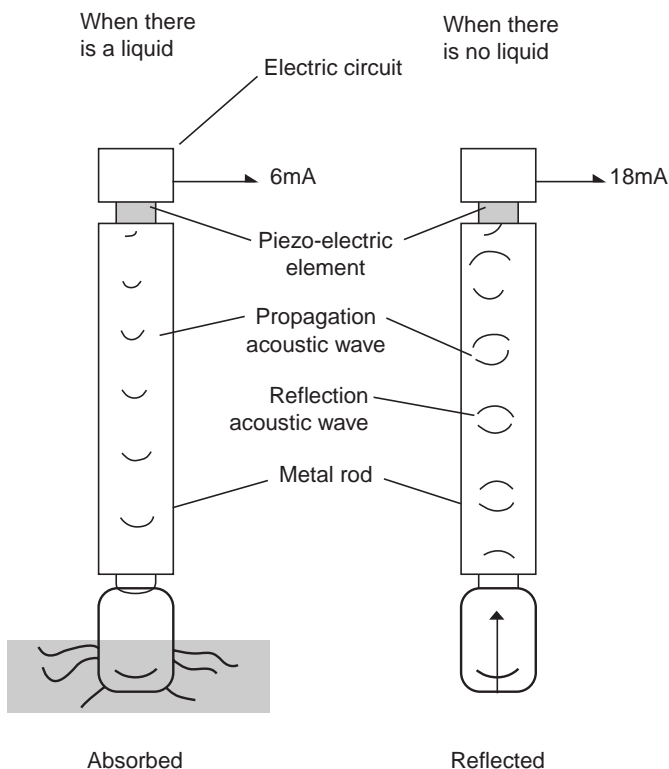
LIDEC sensor, which generates the acoustic wave by the PZT element, is placed at the top position of MIA-LIDEC, and the acoustic wave is sent to a metallic rod.

The head of the metallic rod has such a structure as the acoustic wave can be easily diffused. When detecting liquid does not exist around the head of the metallic rod, the acoustic wave is reflected at the head of LIDEC sensor and returns to electronics.

When the liquid level goes up and the liquid exists at the head of metallic rod, the acoustic wave is propagated and absorbed into the liquid without returning to electronics.

The circuit which distinguishes the existence of a reflective acoustic wave is established in the electric circuit part. The existence of the liquid at metal rod head is detected.

In an electric circuit, the existence of this reflective acoustic wave is changed into the current signal (6mA / 18mA), and alarm status is transmitted to remote place by the signal loop of two-wire system.



FEATURES

- High durability and reliance with a detection method without having moving part, and maintenance-free.
- Anything will be detected if it is a liquid. The adjustment by the kind of liquid is unnecessary.
- Even if there is remarkable liquid adhesion, it normally operates. A high viscosity liquids is also acceptable.
- Authorized by each classification-societies, and intrinsically safe construction.
- Preeminent for safety with a static electricity prevention guard. The possibility of the spark discharge from a liquid level to a detecting element was eliminated. The grounding wire work to a tank bottom plates is not necessary.
- With the test facility of operation by magnet actuation. Operation confirming specified by a rule can be performed easily.
- Fail safe design. An alarm output is carried out not only at the time of a level alarm, but also at the time of power cut, a substrate trouble and piezo-electric element trouble. It can be used without anxiety.

STANDARD SPECIFICATION

Measuring object : All types of liquid
 Application : Detection of liquid level
 High alarm and Overflow alarm
 Available types 1) High alarm alone
 2) High alarm and overflow alarm combined
 Power supply : DC18V to 28V, 2-wire system Output In
 normal condition : 18mA
 In alarm condition : 6mA
 Enclosure : Water tight (IP66 equivalent)
 Explosion proof : Intrinsically safe (EExia II CT6)
 Installation Standard : For alone version JIS5K65A flange
 For combined version JIS5K125A flange Option Other flanges
 Electric connection Standard : JIS5K32A flange
 Operation confirming function : Provided as standard

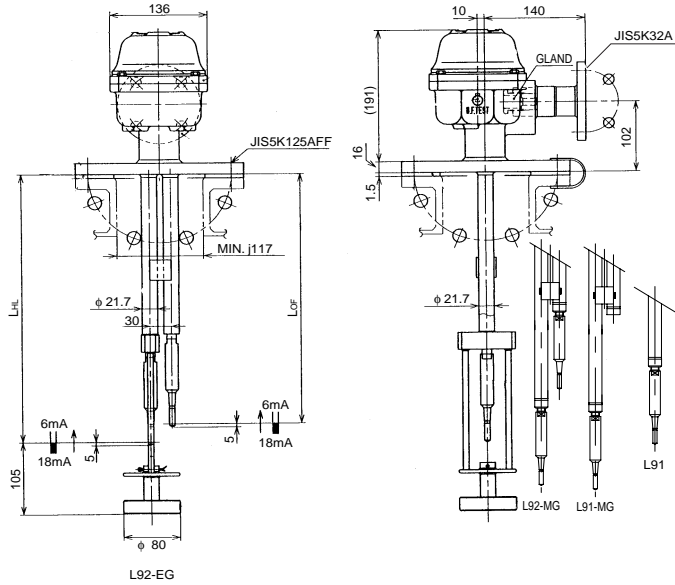
MATERIAL

Sensor : SUS316L
 Support : SUS304, SUS316, and SUS316L
 Static electricity prevention guard : TEFLON
 Installation flange : SUS304, SUS316, and SUS316L
 Electric part housing : SCS14

MODEL CODE

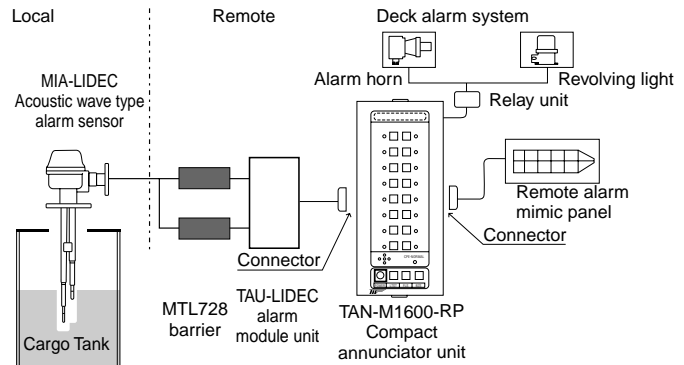
MIA-LIDEC	-	-	-	Contents
Number of detecting points	L91	-	-	1 point (HA or OF)
	L92	-	-	2 points (HA, OF)
Sensor and guide form		MG		With reinforcement plate
		EG		With static electricity guard plate

EXTERNAL DIMENSION



The above dimensions are for combined version of high and overflow alarm.

SYSTEM CONFIGURATION



*Specification is subject to change without notice.



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